

#23



ENTERED

1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/471,669A

DATE: 12/23/2002 P-6
TIME: 12:15:54

Input Set : A:\Sub15270-006430US.app

Output Set: N:\CRF4\12232002\I471669A.raw

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3 <110> APPLICANT: Anderson, John P.
4      Basi, Guribbal
5      Doane, Minh Tam
6      Frigon, Normand
7      John, Varghese
8      Power, Michael
9      Sinha, Sukanto
10     Tatsuno, Gwen
11     Tung, Jay
12     Wang, Shuwen
13     McConlogue, Lisa
14     Elan Pharmaceuticals, Inc.
16 <120> TITLE OF INVENTION: BETA-SECRETASE ENZYME COMPOSITIONS AND METHODS
18 <130> FILE REFERENCE: 015270-006430US
20 <140> CURRENT APPLICATION NUMBER: US 09/471,669A
21 <141> CURRENT FILING DATE: 1999-12-24
23 <150> PRIOR APPLICATION NUMBER: US 60/114,408
24 <151> PRIOR FILING DATE: 1998-12-31
26 <150> PRIOR APPLICATION NUMBER: US 60/119,571
27 <151> PRIOR FILING DATE: 1999-02-10
29 <150> PRIOR APPLICATION NUMBER: US 60/139,172
30 <151> PRIOR FILING DATE: 1999-06-15
32 <160> NUMBER OF SEQ ID NOS: 108
34 <170> SOFTWARE: PatentIn Ver. 2.1
36 <210> SEQ ID NO: 1
37 <211> LENGTH: 1503
38 <212> TYPE: DNA
39 <213> ORGANISM: Homo sapiens
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44 ctgcggtctg cccgggagac cgacgaagag cccgaggagc ccggccggag gggcagcttt 180
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53 cccctcaacc agtctgaagt gctggcctct gtcggaggga gcatgatcat tggaggatc 720
54 gaccactcgc tgtacacagg cagtctctgg tatacaccca tccggcgga gtggtattat 780
55 gaggtgatca ttgtgcgggt ggagatcaat ggacaggatc tgaaaatgga ctgcaaggag 840

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56 tacaactatg acaagagcat tgtggacagt ggcaccacca accttcgttt gcccaagaaa 900
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58 ggtttctggc taggagagca gctggtgtgc tggcaagcag gcaccacccc ttggaacatt 1020
59 ttcccagtc tctcactcta cctaattgggt gaggttacca accagtcctt ccgcatcacc 1080
60 atccttccgc agcaataacct gcggccagtg gaagatgtgg ccacgtccca agacgactgt 1140
61 tacaagtttg ccatctcaca gtcatccacg ggcactgtta tgggagctgt tatcatggag 1200
62 ggcttctacg ttgtctttga tcgggcccga aaacgaattg gctttgctgt cagcgcttgc 1260
63 catgtgcacg atgagttcag gacggcagcg gtggaaggcc cttttgtcac cttggacatg 1320
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65 gtcattggctg ccatctgcgc cctcttcattg ctgccactct gcctcatggg gtgtcagtgg 1440
66 cgctgcctcc gctgcctgcg ccagcagcat gatgactttg ctgatgacat ctccctgctg 1500
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71 <211> LENGTH: 501
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77 1 5 10 15
79 Leu Pro Ala His Gly Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser
80 20 25 30
82 Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp
83 35 40 45
85 Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val
86 50 55 60
88 Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr
89 65 70 75 80
91 Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser
92 85 90 95
94 Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr
95 100 105 110
97 Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val
98 115 120 125
100 Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp
101 130 135 140
103 Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile
104 145 150 155 160
106 Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp
107 165 170 175
109 Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp
110 180 185 190
112 Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro
113 195 200 205
115 Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln
116 210 215 220
118 Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
119 225 230 235 240
121 Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
122 245 250 255

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124 Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
125          260          265          270
127 Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
128          275          280          285
130 Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
131          290          295          300
133 Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
134 305          310          315          320
136 Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
137          325          330          335
139 Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
140          340          345          350
142 Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
143          355          360          365
145 Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
146          370          375          380
148 Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
149 385          390          395          400
151 Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
152          405          410          415
154 Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala Val Glu
155          420          425          430
157 Gly Pro Phe Val Thr Leu Asp Met Glu Asp Cys Gly Tyr Asn Ile Pro
158          435          440          445
160 Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
161          450          455          460
163 Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys Gln Trp
164 465          470          475          480
166 Arg Cys Leu Arg Cys Leu Arg Gln Gln His Asp Asp Phe Ala Asp Asp
167          485          490          495
169 Ile Ser Leu Leu Lys
170          500
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174 <211> LENGTH: 24
175 <212> TYPE: DNA
176 <213> ORGANISM: Homo sapiens
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183 <211> LENGTH: 24
184 <212> TYPE: DNA
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
189 oligonucleotide primer derived from SEQ ID NO:2
191 <400> SEQUENCE: 4
192 gagagacgar garccwgaag agcc 24
195 <210> SEQ ID NO: 5
196 <211> LENGTH: 24

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Input Set : A:\Sub15270-006430US.app

Output Set: N:\CRF4\12232002\I471669A.raw

197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
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204 <400> SEQUENCE: 5
205 gagagacgar garccwgaag aacc 24
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209 <211> LENGTH: 24
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
213 <220> FEATURE:
214 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
215 oligonucleotide primer derived from SEQ ID NO:2
217 <400> SEQUENCE: 6
218 gagagacgar garccwgagg aacc 24
221 <210> SEQ ID NO: 7
222 <211> LENGTH: 23
223 <212> TYPE: DNA
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230 <400> SEQUENCE: 7
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236 <212> TYPE: DNA
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240 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
241 oligonucleotide primer derived from SEQ ID NO:2
243 <400> SEQUENCE: 8
244 agagacgarg arccsgaaga gcc 23
247 <210> SEQ ID NO: 9
248 <211> LENGTH: 23
249 <212> TYPE: DNA
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253 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
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256 <400> SEQUENCE: 9
257 agagacgarg arccsgaaga acc 23
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261 <211> LENGTH: 23
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
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Input Set : A:\Sub15270-006430US.app

Output Set: N:\CRF4\12232002\I471669A.raw

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270 agagacgarg arccsgagga acc                                23
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274 <211> LENGTH: 23
275 <212> TYPE: DNA
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295 <400> SEQUENCE: 12
296 cgtcacagrt trtctaccat ctc                                23
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300 <211> LENGTH: 23
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
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306     oligonucleotide primer derived from SEQ ID NO:2
308 <400> SEQUENCE: 13
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322 cgtcacagrt trtcgaccat ctc                                23
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327 <212> TYPE: DNA
328 <213> ORGANISM: Artificial Sequence
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331 <223> OTHER INFORMATION: Description of Artificial Sequence: Degenerate
332     oligonucleotide primer derived from SEQ ID NO:2
334 <400> SEQUENCE: 15
335 cgtcacagrt trtcaaccat ttc                                23
338 <210> SEQ ID NO: 16

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RAW SEQUENCE LISTING ERROR SUMMARY
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Input Set : A:\Sub15270-006430US.app
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:22; N Pos. 12
Seq#:23; N Pos. 12
Seq#:24; N Pos. 12
Seq#:25; N Pos. 12
Seq#:26; N Pos. 7
Seq#:27; N Pos. 7
Seq#:28; N Pos. 3,12
Seq#:29; N Pos. 3,12
Seq#:34; N Pos. 16
Seq#:35; N Pos. 16
Seq#:36; N Pos. 16
Seq#:37; N Pos. 16
Seq#:48; N Pos. 6164,6238,6254,6255,6256,6257,6258,6259,6260,6261,6262,6263
Seq#:48; N Pos. 6264,6265,6266,6267,6268,6269,6270,6271,6272
Seq#:61; Xaa Pos. 4
Seq#:72; Xaa Pos. 10
Seq#:73; Xaa Pos. 5
Seq#:76; N Pos. 6,18,27,30,33,36,39,42,48,57
Seq#:78; Xaa Pos. 3
Seq#:81; Xaa Pos. 4

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 1

VERIFICATION SUMMARY

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Input Set : A:\Sub15270-006430US.app

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L:431 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:449 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:503 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1082 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:6120
L:1083 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:6180
L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:6240
L:1713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:0
L:2396 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:0
L:2415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:0
L:2594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0
L:2626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:78 after pos.:0
L:2674 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:0